Forest Service Pacific Northwest Region

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File Code: 1570

Date: December 17, 2013

Doug Heiken Oregon Wild PO Box 11648 Eugene, OR 97440

CERTIFIED MAIL – RETURN RECEIPT REQUESTED NUMBER: 7006 0810 0001 7496 1680

Dear Mr. Heiken:

This constitutes my decision, pursuant to 36 CFR 215.18(b)(1), on your appeal (#14-06-00-0004-215) of Forest Supervisor Rob MacWhorter's Decision Notice (DN) for the Bybee Vegetation Management Project Environmental Assessment (EA), on the Prospect Ranger District, Rogue River-Siskiyou National Forest.

Background

On September 17, 2013, Rob MacWhorter, Forest Supervisor for the Rogue River-Siskiyou National Forest, signed a decision notice (DN) and finding of no significant impact (FONSI) for the Bybee Vegetation Management Project. His decision to implement Alternative 3, modified, included:

- 2,021 acres of commercial harvesting on 45 units, producing about 27 million board feet;
- 487 acres of precommercial thinning on 14 units;
- 236 acres of non-commercial thinning on 27 units that intersect Riparian Reserves;
- Constructing 7.9 miles of temporary roads;
- Decommissioning of 5.4 miles of temporary roads; and
- Implementing soil restoration, planting, animal damage control and wildlife habitat improvements.

Three modifications to Alternative 3 were made. First, treatment was deferred in 5 units and one mile of temporary road because the final prescription would not meet the purpose and need and retention of these units would retain wildlife habitat for the northern spotted owl and reduce potential effects to areas that are adjacent to Crater Lake.

Second, 10 units will be precommercial thinned instead of mechanical girdled because girdling was determined to be unnecessary for reducing mistletoe infected trees.

Third, 3 units would be precommercial thinned and one unit 'low' thinned instead of free thinned, also dropping 0.5 miles of temporary road to reduce stand density in the understory.

Pursuant to 36 CFR 215.17, an attempt was made to seek informal resolution of the appeals. The record indicates that informal resolution was not reached.



My review of this appeal has been conducted in accordance with 36 CFR 215.18, Formal review and disposition procedures. I have reviewed the appeal record, including the recommendations of the Appeal Reviewing Officer. A copy of her recommendation is enclosed. The Appeal Reviewing Officer focused her review on the appeal record and the issues that were raised in the appeals.

Appeal Decision

After a detailed review of the record and the Appeal Reviewing Officer's recommendation, I affirm the Responsible Official's decision for the Bybee Vegetation Management Project and deny your requested relief. This decision constitutes the final administrative determination of the Department of Agriculture [36 CFR 215.18(c)]. A copy of this letter will be posted on the national appeals web-page at http://www.fs.fed.us/appeals.

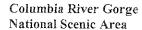
Sincerely,

KENT P. CONNAUGHTON

Cercalostroffed

Regional Forester

cc: Rob MacWhorter, Lynn Burditt, Mitchell G Wilkinson, Craig D Davis, David J Krantz, Debbie Anderson, Adam A Felts



Forest Service

902 Wasco Ave., Suite 200 Hood River, OR 97031 541-308-1700

File 1570

Code: Route To:

Date: December 17, 2013

Subject: Appeal Recommendation, Bybee Vegetation Management Project

To: Becki Heath, Deputy Regional Forester, R6

On September 17, 2013, Rob MacWhorter, Forest Supervisor for the Rogue River-Siskiyou National Forest, signed a decision notice (DN) and finding of no significant impact (FONSI) for the Bybee Vegetation Management Project. His decision to implement Alternative 3, modified, included:

- 2,021 acres of commercial harvesting on 45 units, producing about 27 million board feet;
- 487 acres of precommercial thinning on 14 units;
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Third, 3 units would be precommercial thinned and one unit 'low' thinned instead of free thinned, also dropping 0.5 miles of temporary road to reduce stand density in the understory.

Three groups appealed this project, Oregon Wild (#14-06-00-0004-215), American Forest Resource Council (#14-06-00-0005-215), and the Murphy Company (#14-06-00-0006-215). Oregon Wild's requested relief was to withdraw the decision and issue a new decision that avoids logging and road building in roadless, unroaded, mature, and old-growth forests or prepare an Environmental Impact Statement. American Forest Resource Council's requested relief was to go through another public commenting period and issue a DN that adopts Alternative 2. The Murphy Company's requested relief was to issue a new alternative that does not modify the treatment in the 16 units that maintained thermal and hiding cover for big game.





Pursuant to 36 CFR 215.17, an attempt was made to seek informal resolution of the appeals. The record indicated that informal resolution was attempted, but was not reached with Oregon Wild, American Forest Resource Council, or the Murphy Company.

Review and Findings

My review was conducted in accordance with 36 CFR 215.19 to ensure that the analysis and decision are in compliance with applicable laws, regulations, policies, and orders. The appeal record, including the appellants' issues, has been thoroughly reviewed. Having reviewed the Decision Notice, Finding of No Significant Impacts and the project record as required by 36 CFR 215.19(b), I conclude the following:

- 1. The decision clearly described the actions to be taken in sufficient detail that the reader can easily understand what will occur as a result of the decision.
- 2. The decision considered a range of alternatives that was adequate to respond to the Purpose and Need and the issues identified during scoping. The purpose and need and alternatives considered in the EA reflect a reasonable range of alternatives, consistent with law, regulation and policy.
- 3. The decision is consistent with all policy, law, direction, and supporting evidence. The record contains documentation regarding resource conditions and the Responsible Official's decision document is based on the record and reflects a reasonable conclusion.

After considering the claims made by the appellants and reviewing the record, I found that the Responsible Official conducted a proper and public NEPA process that resulted in a decision that is consistent with the Rogue River-Siskiyou NF Land and Resource Management Plan. I found no violations of law, regulations, or Forest Service policy.

Recommendation

After reviewing the appeal record, I recommend affirming the decision. I believe that the project documentation adequately supports the Forest Supervisor's decision with regards to all appeal points raised by the appellants.

Enclosed with this memo are my responses to each appeal issue.

LYNN BURDIT Area Manager

cc: Debbie Anderson, Adam A Felts

Bybee Vegetation Management Project Environmental Assessment (EA) Appeal Statements and Responses

Rogue River – Siskiyou National Forest December 2013

Appellants	Appeal Number
Oregon Wild (OW)	14-06-00-0004-215
American Forest Resource Council (AFRC)	14-06-00-0005-215
Murphy Company (MC)	14-06-00-0006-215

Decision Notice - Finding of No Significant Impacts

Appellant Statement #1: The appellants assert that the Responsible Official failed to adequately justify why he chose Alternative 3, an alternative that was not described within the EA. AFRC at 1 and 5. MC at 2.

Response: I find that the Responsible Official's rationale for selecting modified Alternative 3 was adequate. Within his Decision Notice (DN), the Responsible Official explained why he determined that Alternative 3 with its modifications best meets the purpose and need of the Bybee Project. In addition, the Responsible Official provided sound rationale as to why he chose to make modifications to Alternative 3, based on analysis and consideration of public comments. I find that modified Alternative 3 was described in the EA, because it comprises components that where contained within the original Alternatives 3 and 4.

The Code of Federal Regulations (CFR) at 36 CFR 220.7(c) specifies that the DN must document the conclusions drawn and the decision(s) made based on the supporting record, including the EA and the Finding of No Significant Impacts (FONSI). The Forest Service Handbook (FSH 1909.15 (43.21)) says that a DN must include a decision and rationale, which must describe the selected alternative and the nature of the decision.

The Decision Framework within the EA described the factors that were considered by the Responsible Official. EA at 7. This section indicated that the Responsible Official "may select which alternative or combination of alternatives is to be implemented." EA at 8. Furthermore, the EA stated, "the deciding official will weigh how well the selected alternative achieves the purpose and need and how responsive it is to the identified relevant issues. No one element of the purpose and need or key issues will be used to make a decision; rather, they will be reviewed together with an assessment of tradeoffs to make the final decision." EA at 8.

The components of Alternative 3 were described in the EA. EA at 34 through 41, 50, and 51 through 61. The issues around which Alternative 3 was developed were also described. EA at 34 through 35.

As the Responsible Official noted in the DN, the modifications to Alternative 3 are within the range of effects analyzed in the Bybee EA. DN at 2. The Responsible Official's decision to defer treatment in units 7, 9, 10, 11 and 14 (Modification 1) was based on field verification that was documented in the Silvicultural Report Supplement (Attachment 2 to the DN); the on-site analysis indicated that the stands currently meet the desired condition, and high water

tables/wetland meadows in units 10, 11 and 14 create feasibility issues for harvest operations. DN Attachment 2 at 1.

The basis for Modification 2 was described under Alternative 4 in the EA; relevant information regarding the efficacy of mistletoe treatments provided by public commenters led to the proposal to precommercially thin ten units (1, 8, 12, 25, 36, 55, 58, 72, 73 and 75) instead of the girdling/precommercial thin strategy proposed in Alternative 3 prior to comments. DN at 2; EA at 42.

The basis for Modification 3 was described under Alternatives 3 and 4 within the EA; precommercial thinning was selected for units 3, 4, 5, and 6 and low thinning was selected for unit 13 in order to reduce density in the overstocked understory and provide an opportunity to conduct soil restoration activities. DN at 2.

The Responsible Official described the rationale for his decision in Section E of the DN; he specifically stated that he selected Alternative 3 and its modifications over the other alternatives because it best meets the purpose and need, its responsive to public comments, and meets resource concerns. DN at 3.

Appellant Statement #2: The appellant asserts that the Responsible Official failed to explain how the modifications to Alternative 3 fit the Bybee Project's purpose and need. The appellant asserts this is a violation of NEPA. AFRC at 7.

Response: I find that the Responsible Official adequately explained how the selected alternative, including the modifications, met the purpose and need for the Bybee EA.

The regulation at 36 CFR 220.7 (b)(2) states that an EA shall briefly describe the proposed action and alternative(s) that meet the need for action. A DN must include a decision and rationale.

The purpose and need for action is described in the DN as follows: "1) improve stand conditions, diversity, density, and structure to increase forest resiliency and overall forest health; 2) provide for a sustainable supply of timber products that contribute to probable sales quantity (PSQ) of commercial timber and other commodity outputs; and 3) reduce the risk to forest resources from high-intensity fire." DN at 1.

The Responsible Official, in the DN, described how each aspect of the purpose and need was met by the selected alternative, including the modifications. First, he described how the authorized activities would improve stand conditions, diversity, density and structure to increase forest resiliency and health through the various thinning techniques and active soil restoration. DN at 3; EA at 79, 85, 244 and 98 through 123. He stated that the Bybee project will contribute to the probable sale quantity (PSQ) by generating approximately 27 million board feet in commercial timber volume, as well as other commodity outputs such as biomass material and firewood. DN at 3; EA at 70, 71, 74 and 247 through 250. Finally, the Responsible Official stated that the project would meet the purpose and need by reducing the risk of high-intensity fire on approximately 3,211 acres, such that wildfire may pass through treated stands without resulting in unacceptable levels of mortality. DN at 3; EA at 64 through 74.

Appellant Statement #3: The "Silviculture Report Supplement" (August 25, 3013) was not subject to public comment, and was not addressed in the body of the EA. The appellant asserts this is a violation of NEPA. AFRC at 7.

Response: I find that the Responsible Official provided adequate information to the public during the 30-day commenting period and the Alternative 3 modifications were within the range of effects analyzed in the Bybee EA. The Responsible Official provided an avenue so that the public was given an opportunity to provide meaningful comments.

The regulation at 36 CFR 215.1(b) states that the opportunity to comment provides an avenue for the public to provide meaningful input prior to the decision on projects and activities implementing land and resource management plans.

The Responsible Official followed an appropriate public involvement process, executing scoping, commenting, and appeal periods. DN at 9 and 16. Over 11,400 comments were received from all 50 states within the US. DN at 9. These comments brought up many meaningful comments, including concerns regarding cross-boundary effects into Crater Lake National Park, the Crater Lake Wilderness campaign, soils, wildlife species, Aquatic Conservation Strategy, large tree removal, and the project's level of effects. DN at 4.

The Silviculture Report Supplement supplied site-specific information to the Bybee Project. The Responsible Official made modifications to Alternative 3 within the EA and appropriately stated that these modifications "are within the range of effects analyzed in the Bybee EA." DN at 2. Therefore, the Responsible Official appropriately did not go through an additional 30-day commenting period.

Appellant Statement #4: The appellant asserts that the Responsible Official failed to document in the DN why treatment of the riparian reserves was dropped for 20 units. AFRC at 8.

Response: I find that the Responsible Official adequately displayed his decision rationale, concerning his decision for vegetation treatments within Riparian Reserves.

The regulation at 36 CFR 220.7(c)(2) states that a DN must include a decision and rationale.

The appellant does not specify their concerns about these "20 units," where the Responsible Official's rationale faltered or what specific units were included within this grouping. Based on my review of the EA, it appears that no treatment except non-commercial treatment was planned wherever treatment units intersect Riparian Reserves. The Bybee EA displayed that 257 acres had treatments proposed within Riparian Reserves for Alternative 3. EA at 39. This is similar to the selected alternative displayed within the DN, 236 acres, which defers treatment in 5 more units.

Furthermore, the EA at 53 described that non-commercial thinning may take place within 100 feet of perennial streams, but that "no commercial timber harvest would occur within this zone under any alternative. Where commercial treatment units intersect the Riparian Reserve, only non-commercial thinning would occur within the area intersecting the Riparian Reserve." The DN reiterated that non-commercial thinning is proposed on up to 236 acres within Riparian Reserves, and describes the expected effects. DN at 11.

See response to Appellant Statement #2 for details about the Responsible Official's decision rationale and where this was displayed within the Bybee Project.

Appellant Statement #5: The appellant states that the EA is tiered to an outdated Northwest Forest Plan (NWFP). The appellant asserts that there is a significant amount of new information like the barred owl effects on spotted owl, low snag and down wood standards are not adequate, and climate change effects that were not considered within the NWFP. OW at 7.

Response: I find that the Responsible Official appropriately utilized the NWFP, best available science, and available data.

The regulation at 40 CFR 1500.1(b) advises that accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives. Forest Service policy (June 20, 2007) directs the Responsible Official to base their decision on technically sound science.

Permanently altering the NWFP within the analysis of the Bybee EA is beyond the scope of this project. However, the Responsible Official must ensure that his decision is based on sound science and the best available data. I find that he did just that; the Responsible Official based his decision on sound science and the best available data.

The EA at 132 and F1-17 disclosed effects to spotted owls from new threats identified in a 5-year review and an associated scientific evaluation status of the spotted owl. The EA at 132 and 133 described those new threats (i.e., barred owl, fire, West Nile virus, sudden oak death and climate change) and their effect on spotted owls within the project area.

Within the EA at 142 and F1- 47 the Forest Service evaluated alternatives, and found them consistent, with respect to the new Spotted Owl Recovery Plan goals for southwest Oregon (USDI Fish and Wildlife Service 2011), in particular Recovery Action 8, which addressed spotted owl recovery in fire prone forests. In addition to following the best available science, the Responsible Official worked closely with the United States Fish and Wildlife Service (USFWS), the regulatory agency overseeing conservation and recovery of the northern spotted owl. The Responsible Official stated that he would continue to involve the USFWS, as well as other entities throughout this project in order to ensure that the recovery plans goals specific to southwest Oregon are met.

The EA at 222 discussed the status of the Forest Plan in regards to how habitat management for cavity nesters has been updated and how the Forest used the best science through the use of alternative methodology that uses local plant series and long-term ecoplot data to prescribe snag and down wood levels. The EA at 22 through 24 displayed the appropriate recent science the Responsible Official used when he determined desired snag and down wood levels.

The EA at 261 stated the Forest Service direction on addressing climate change analysis in project-level NEPA as well as the global scale. The EA at 262 through 266 displayed the Bybee Project's effects on Climate Change and the effects of Climate Change on the Bybee Project.

Purpose and Need

Appellant Statement #6: The appellants assert that the Responsible Official selected an alternative that does not meet the project's purpose and need. The appellant asserts that supplemental reports completed after EA was completed and not subject to public comment were "fundamental" to the decision, requiring it to have been included in EA and available for public comment. AFRC at 1 through 2, 5 and 7. MC at 2.

Response: I find that the Responsible Official selected an alternative that balanced competing interests while still meeting the purpose and need. Furthermore, I find that the Responsible Official provided an appropriate avenue for the public to supply meaningful comments.

The regulation at 36 CFR 220.7(b)(1) directs the agency to briefly state the need for action in an EA.

See response to Appellant Statement #2 for my response on how the Responsible Official's selected alternative met the project's purpose and need. Also, see response to Appellant Statement #3 for my response on how the Responsible Official supplied adequate materials to get meaningful comments during the 30-day commenting period.

Appellant Statement #7: The appellant asserts that the proposed action will not meet the purpose and need because the Responsible Official confuses tree vigor with forest health. The appellant states that logging will in fact degrade forest health rather than maintain it. OW at 10.

Response: I find that the Responsible Official selected an alternative that met the purpose and need of the Bybee Project.

The regulation at 36 CFR 220.7(b)(1) directs the agency to briefly state the need for action in an EA.

See response to Appellant Statement #2 for my response on how the Responsible Official's selected alternative met the project's purpose and need.

The Responsible Official described how the authorized activities would improve stand conditions, diversity, density and structure to increase forest resiliency and health through the various thinning techniques and active soil restoration. DN at 3; EA at 79, 85, 244 and 98 through 123. Specifically, the Responsible Official stated that the selected alternative would loosen detrimentally compacted soils, allow areas to be naturally regenerated, reduce the threat of high-intensity wildfires, promote structural diversity, and help slow the spread of root rot pathogens. DN at 3.

The Responsible Official displayed the Bybee Project's adverse and beneficial effects throughout Chapter 3 of the EA. EA at 62 through 266.

Appellant Statement #8: The appellant asserts that the proposed action will not meet the purpose and need because the proposed action will not reduce the risk to forest resources from

high-intensity fire. The appellant states that wildfires are desirable from an ecological stand point and logging will not reduce the risk of fire, it will only degrade acres. OW at 11. **Response:** I find that the Responsible Official selected an alternative that met the purpose and need of the Bybee Project.

The regulation at 36 CFR 220.7(b)(1) directs the agency to briefly state the need for action in an EA. The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

See response to Appellant Statement #2 for my response on how the Responsible Official's selected alternative met the project's purpose and need.

The Bybee Project's purpose and need included: improving stand conditions, diversity, density and structure; providing a sustainable timber projects supply; and reducing the risk to forest resources from high-intensity fire. EA at 1. The EA described the need for moving the vegetation and fuels conditions toward the desired condition in order to reduce the risk of losing key ecosystem components. EA at 6.

The DN at 3 stated that the Bybee Project would reduce the threat of high-intensity wildfires by reducing the amount of ladder fuels, thus meeting the purpose and need of the project. DN at 3.

The EA stated that existing fuel conditions resulting from a century of fire exclusion and past timber harvest practices have resulted in hazardous fuel buildup. EA at 179 through 182; EA Appendix D at D-32 through D-34. The EA provided analysis and literature citations, as well as professional judgment, that indicated proposed treatments will reduce fire intensity (severity) and provide opportunities to manage both desirable and undesirable wildfires in the future. EA at 179 through 182; EA Appendix D at D-21 and D-32 through D-34. The EA states that activity fuels will be treated (using one or more of several options) based on a post-harvest evaluation to the extent necessary to "achieve an acceptable fire and fuels risk." EA at 1; EA Appendix D at D-26 through D-27. Proposed commercial thinning is expected to reduce potential for running crown fire. EA at 179 through 184; EA Appendix D at D-22 and D-32 through D-34. The EA acknowledged a short-term increase in fire behavior can be expected while harvest residue (slash) remains in the unit; however, this increase would be diminished through treatment of activity fuels. EA at 179 through 184; EA Appendix D at D-22. The Responsible Official continued to state within the EA about how the Bybee Project's activities would temporarily increase wildfire potential (because of thinning slash) and where wildfire potential would be, in the long-term, decreased by reducing potential flame lengths and increasing canopy base height. EA at 179 through 184; EA Appendix D at D-21, D-23, D-32, and D-34.

General Effects

Appellant Statement #9: The appellant asserts that the EA fails to recognize the qualitative difference between the effects of logging and natural disturbances like wildfire. "A tree that dies in the forest from natural causes and becomes valuable down wood habitat is better for fishers than a tree that dies in the forest from logging and is export off-site on a log truck." OW at 12.

Response: I find that the Responsible Official appropriately analyzed and disclosed impacts from harvest activities and considered the relative risk and ecological tradeoffs between timber harvest and the risk of high severity fire effects expected under the no action alternative.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The EA and DN articulated the ecological tradeoffs of achieving the purpose and need with proposed actions, including impacts to habitat and down wood. EA at 62 through 266. The adverse and beneficial impacts from project activities, including timber harvesting, were displayed within the Chapter 3 analysis. The existing fire hazard and fire threat to resource values was stated within the EA and this analysis utilized the best available science to demonstrate a reduction in this risk would occur from implementing the project activities. EA at 179 through 184. The analysis further supported a need for treatment based on the high probability of lightning and human-caused wildfires in this area. EA at 182.

Forest Plan

Appellant Statement #10: The appellant asserts that the Responsible Official selected an alternative that doesn't meet the intent of the Rogue River-Siskiyou National Forest Land and Resource Management Plan (Forest Plan). MC at 2.

Response: I find that the Responsible Official selected an alternative that is consistent with the goals and objectives described in the Forest Plan.

Since the appellant does not specify which portion of the Forest Plan was not meet by the selected alternative, my response will analyze how, in general, the Responsible Official's selected alternative met the Forest Plan.

The selected alternative (modified Alternative 3) is essentially a blending of actions proposed under Alternatives 3 and 4. In selecting this alternative, the Responsible Official reviewed the Bybee Project Record, including the EA and effects analysis, resource specialist reports, management requirements, and applicable laws. DN at 2. Furthermore, the Responsible Official considered how well each alternative met the purpose and need. DN at 3. The Responsible Official stated that the implementation of modified Alternative 3 is consistent with the intent of the Forest Plan's goals and objectives (4-1 through 4-26) and that the Bybee Project was designed to conform to the Forest Plan standards and guidelines, thus the project is consistent with the Forest Plan. DN at 6.

Range of Alternatives

Appellant Statement #11: The appellant asserts that the EA does not consider a broad enough range of alternatives. The appellant states that the amount of alternatives were restricted by economics and shouldn't have been since helicopter yarding should have been considered. The appellant asserts that the Responsible Official should analyze this project using an EIS to

"stimulate a more thorough search for ways of implementing environmentally preferred alternatives that may at first seem economically infeasible." OW at 9.

Response: I find that the Responsible Official's range of alternatives were adequate, responding to the project's purpose and need and the issues identified during the public commenting periods.

The regulation at 36 CFR 220.7(b)(2) directs the agencies to consider public comments from scoping in order to identify unresolved conflicts and develop alternatives that meet the need for action. No specific number of alternatives is required or prescribed.

The Responsible Official considered in detail four alternatives; seven alternatives or components were considered but eliminated from detailed study. DN at 7; EA at 25 through 61. The DN outlined all the potential issues and concerns the public brought forward. DN at 4; DN Attachment 3 at 1 through 110. The Responsible Official stated how mitigation measures and project design criteria addressed the public's issues and concerns in order to mitigate or eliminate environmental impacts. DN at 4. The Responsible Official explained why seven additional alternatives were not considered in detail within the EA at 61. These explanations did not always involve economics, displaying that economics did not restrict the range of alternatives.

Helicopter yarding was proposed to be the required logging system for a unit under Alternative 2, the proposed action. EA at 27. The unit was dropped under Alternatives 3 and 4. EA at 35 and 43. Public comment suggested considering helicopter logging as a lower-impact logging system; the Response to Comments indicated that helicopter logging could be utilized by a purchaser where the purchaser determines it would be more cost-effective. Moreover, Response to Comments and the Transportation, Logging Systems, and Economics Report indicated that helicopter logging may require larger landings or other operational clearings that can create soil impacts where none previously existed. DN Attachment 3 at 17; EA Appendix H at H-25.

A public comment raised the possibility of including helicopter logging in all action alternatives; in the Response to Comments, the Forest Service stated, "the Forest Service considers the economic viability of potential timber sales to ensure alternatives considered in detail are reasonable for the purpose of benefit to cost ratio. It is important to recognize the impact more expensive harvest methods such as helicopter yarding in lieu of road construction with cable yarding or ground-based methods has on the economic feasibility of the project. Therefore, the NEPA analysis contemplates a reasonable range of alternatives given economic 'cost efficient' methods. This response reiterates that a purchaser is not precluded from utilizing less environmentally impactive methods of timber harvest, where there are no substantive restrictions to such methods. The unit that was dropped from Alternatives 3 and 4 was a case in which economics determined that including a helicopter-only unit into a sale offering would preclude reasonable prudent purchasers from bidding on a sale." DN Attachment 3 at 15.

Appellant Statement #12: The appellant asserts that the EA failed to consider a reasonable alternative that would conduct soil restoration without further soil compaction. OW at 10.

Response: I find that the Responsible Official's range of alternatives were adequate, responding to the project's purpose and need and the issues identified during the public commenting periods.

The regulation at 36 CFR 220.7(b)(2) directs the agencies to consider public comments from scoping in order to identify unresolved conflicts and develop alternatives that meet the need for action.

The Responsible Official conducted public scoping and all comments, including those submitted by the appellant, were considered. Appeal Record, Scoping Report at 1-12. Key issues were developed from the scoping comments and alternatives to the proposed action were developed in response to key issues, as described in the EA. EA at 12, 34 and 42. The Responsible Official identified the potential for effects to soils as a key issue; Alternatives 3 and 4 both included components (such as dropped units and dropped temporary road construction) to address this issue. EA at 34 and 42.

The development of a new alternative to "conduct soil restoration without further compacting the soils with commercial logging" was not suggested by any commenter during the comment period for the Bybee project; therefore, the Forest Service had no reason to develop or consider such an alternative. However, similarly-framed alternatives (that would drop commercial logging from proposed activities) were considered and eliminated from detailed study because they failed to meet the purpose and need for action. EA at 61.

Roadless and Potential Wilderness

Appellant Statement #13: The appellant asserts that the Responsible Official under-estimated adverse impacts of logging and roads, over-estimated benefits of logging, and ignored important impacts of his decision when considering the FONSI. Specifically, the appellant states that the Responsible Official underestimates the impacts to potential wilderness and roadless areas because he does not consider the 300 feet from roads as potential wilderness or unroaded areas. OW at 2. The appellant asserts that "reducing the size of potential areas, while leaving an area larger than the arbitrary 5,000 acre threshold, does not in any way preclude significant impacts of logging that likely disqualifies portions of the ecologically significant unroaded areas." OW at 3.

Response: I find the Responsible Official adequately displayed the effects from the Bybee Project. The appeal record included a robust analysis of impacts to potential wilderness areas (PWA) and roadless characteristics. Furthermore, I find that the Responsible Official followed law, regulation, and Forest Service policy concerning PWAs and unroaded areas.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The DN clearly displayed the potential impacts to PWAs in terms of context and intensity. The Responsible Official clearly stated that the project would impact about 403 acres of the 166,000 acre PWA, which is only 0.25% of the PWA, so in terms of context and intensity, the impact to the PWA is quite minor. DN at 5; EA at 158. The Responsible Official displayed the impacts from each alternative to PWAs within the EA, utilizing professional judgment and local knowledge to identify unique, site-specific conditions that meet the FSH 1909.12 Chapter 71 PWA requirements. EA at 157. The Responsible Official acknowledged the differences between Oregon Wild's PWA inventory and the Forest Service's PWA inventory. EA at 160. In

addition, the Responsible Official stated how each alternative would affect PWA and unroaded acres. EA at 160 through 163.

The Responsible Official included design features and modifications to the selected alternative, deferring treatment on 246 acres near the boundary with Crater Lake National Park and altering prescriptions on other units in this vicinity, in order to address some of the appellant's concerns. DN at 4.

See response to Appellant Statement #34 for additional discussion regarding 300' buffer width.

Soil and Water

Appellant Statement #14: The appellant asserts that the Responsible Official violated Forest Plan soil standards and NWFP standard WR-3. OW at 3. "The NWFP WR-3 is directly applicable to such restoration efforts and it prohibits the Forest Service from using mitigation to justify further degradation." OW at 3.

Response: I find that the Responsible Official adequately considered Forest Plan soil standards and NWFP standard WR-3.

The NWFP standard WR-3 states: "(d)o not use mitigation or planned restoration as a substitute for preventing habitat degradation." The NWFP Record of Decision (ROD) identifies that where standards and guidelines differ between the Forest Plan and the NWFP, the more restrictive are applied (ROD at 8). The Forest Plan states that no more than 10% of an activity area should be compacted, puddled, or displaced *upon completion* of a project (excluding permanent roads) and 20% or less of an activity area should be displaced or compacted resulting from previous actions (including roads and landings).

Timber harvest is allowed on lands that were degraded in the past, so long as the unit will be rehabilitated, for example, through soil restoration treatments or the detrimental soil level is not added to. EA at 122; FSM 2520 R-6 Supplement 2500-98-1.

See also my response to Appellant Statement # 32 for a discussion as to how the Responsible Official met these standards within the Bybee Project.

Wildlife

Appellant Statement #15: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the analysis of spotted owl impacts. The appellant states, "[t]he 'not likely to adversely affect' (NLAA) determination for spotted owls is clearly erroneous, and adverse effects to a listed species may cause significant impacts requiring an EIS." OW at 3.

The appellant states that "[t]he DN Response-to-Comments (p 19) says: 'Bybee EA discloses that large tree removal would adversely affect some wildlife species, including: northern spotted owl, Pacific fisher, Pallid bat, Townsend's big eared bat, Fringed myotis, Johnson's hairstreak, pileated woodpecker, American Marten, and some species of neotropical migratory birds." The

appellant asserts that the Forest Service is admitting to adverse effects to spotted owls and then avoids consultation with a NLAA determination. OW at 3 and 4.

Response: I find that the Responsible Official appropriately utilized a FONSI and adequately disclosed the Bybee Project's effects to the northern spotted owl (NSO).

The FONSI shall briefly explain the reasons why an action will not have a significant effect on the human environment and, therefore, why an EIS will not be prepared. 40 CFR 1508.13. This document "itself need not be detailed, but must succinctly state the reasons for deciding that the action will have no significant environmental effects, and, if relevant, must show which factors were weighted most heavily in the determination." Forty Most Asked Questions Concerning CEQ's NEPA Regulations at #37a.

The regulation at 40 CFR 1508.27 states that "significantly, as used in NEPA, requires consideration of both context and intensity." The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The Responsible Official stated within the DN Attachment 3, Response to Comments, that the "Bybee EA discloses that large tree removal *would* adversely affect some wildlife species, including: northern spotted owl... *However*, PDCs are incorporated into the Bybee Project to avoid removal of large trees with decadent structure, including legacy trees." (*Emphasis added*) DN Attachment 3 at 19.

The Responsible Official stated within the DN at 9 that after the consideration of environmental effects described in the Bybee EA, he concluded that the Bybee Project's activities would not have a significant effect on the quality of the human environment. DN at 9 and 16.

The Responsible Official described the context of the Bybee Project within the DN at 9. Because the effects of this project were local in nature and the activities were limited in duration, the Responsible Official concluded that there will not be any contributions of significant environmental effects within or beyond the project area. DN at 9.

The Responsible Official adequately addressed each of the 10 intensity factors within the DN. DN at 9 through 16. The Responsible Official specifically addressed the impacts to NSO in three different sections of this intensity analysis. DN at 11, 14, and 15. The Responsible Official stated that the impact to NSO will not rise to a level that will significantly affect the species because nesting, roosting, and foraging and dispersal habitat will be treated and maintained. DN at 11. This conclusion was concurred with by the U.S. Fish and Wildlife Service in their concurrence letter dated July 11, 2011 and in the re-initiation of consultation (January 10, 2013), which occurred after critical habitat was designated. In addition, the Responsible Official deferred treatment in 5 units in order to retain high value wildlife habitat within the home ranges of several spotted owls. DN at 11.

In addition to the DN statements, the Responsible Official analyzed the Bybee Project's effects to the NSO within the EA at 129 through 146. All effects were disclosed regarding treatment, including the short-term degradation of nesting, roosting and foraging (NRF) and dispersal habitat (which would be treated and maintained), the immediate benefit of increased foraging success, and the long-term benefit of restoring ecological processes or long-term forest health. EA at 139 and 140; EA Appendix F at F1-31 through F1-54; DN at 30. Over the long-term,

thinning would also maintain habitat connectivity and reduce fire risk. EA at 141; EA Appendix F1 at F1-46. Effects to NSO prey would be neutral to beneficial. Appeal Record, USFWS Wildlife Consultation at 11. Overall, the proposed action was found to have a short-term negative effect to owls, but a long-term beneficial effect to habitat structure and composition. DN Attachment 3 at 30; EA at 147; Appeal Record, USFWS Wildlife Consultation at 11. The Responsible Official found that these effects would not jeopardize the existence of the owl; the USFWS agreed with this finding in their concurrence letter. DN at 11; Appeal Record, USFWS Wildlife Consultation at 11 through 12.

The re-initiation of consultation did identify and analyze the potential for adverse effects to the NSO and found the proposed actions within the Bybee Project to remain the same as originally analyzed; "may affect, but not likely to adversely affect" the NSO. Appeal Record, USFWS Re-Initiation Wildlife Consultation at 2. Appellant's assertion that consultation was avoided is not correct; the Forest did engage in informal consultation twice; when the project was initially reviewed and a second time, after critical habitat was designated. Both times the regulatory agency agreed with the Forest's determination of not likely to adversely affect, given the minor impacts to nesting, roosting and foraging habitat that would be treated and maintained (200 acres) and in critical habitat, where dispersal only habitat would be removed (62 acres) and dispersal only habitat that would be treated and maintained (889 acres).

The Responsible Official documented throughout chapter 3 of the EA that none of the impacts to NSO are expected to be significant such that preparation of an EIS is warranted. In addition, the Responsible Official documented both the context and intensity of the effects and made a finding of no significant impact for the project, documenting that the project does not constitute a major Federal action that would significantly affect the quality of the human environment. DN at 9 through 16.

Appellant Statement #16: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the analysis of spotted owl impacts. The appellant asserts that the project is located within the KLE-4 subunit of critical habitat for the NSO. "The Bybee Project will degrade, and may adversely modify, approximately 200 acres of nesting, roosting, foraging habitat designated as critical habitat for the spotted owl." OW at 4. The appellant states that the EA does not clearly disclose what is being treated, where the action is going to occur, and what the likely treatment consequences would be. OW at 4.

Response: I find that the Responsible Official adequately displayed the Bybee Project's effects to the NSO and adequately executed a FONSI.

See response to Appellant Statement #15 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately utilized a FONSI, concerning NSO, and how the Responsible Official adequately addressed the effects to NSO within the Bybee Project.

Within the Bybee Project Planning Area Description section of the EA (EA at 2 through 3), the Responsible Official stated legal descriptions of the project area and displayed a generalized topographic map of the area. The Responsible Official showed within the EA a list describing the treatment units and a map of these units in order to display where the treatment activity

would take place. EA at 25 through 50. Furthermore, the consequences of these activities were discussed by the Responsible Official all throughout Chapter 3 of the Bybee EA.

Appellant Statement #17: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the effects to wildlife. The appellant states that the "Bybee Project will have potentially significant adverse impacts on species that are warranted for listing under the Endangered Species Act." OW at 8. Specifically, the appellant is concerned about the Pacific fisher and its association to high canopy cover, dead wood, and complex forest structure. The appellant asserts that the "Bybee Project, combined with the cumulative effects of numerous other projects in Fisher habitat..., could cause trends toward listing in violation of Forest Service policy. OW at 8.

Response: I find the Responsible Official adequately displayed the Bybee Project's effects to the southern Oregon cascades Pacific fisher population and adequately documented his conclusions in a FONSI.

See response to Appellant Statement #15 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately documented his conclusions in a FONSI.

The FONSI criteria of concern here is the intensity factor 5: "The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973." The Responsible Official stated within the EA at 196 that Pacific fisher was petitioned for Endangered Species List and the conclusion of that effort was a "warranted but precluded" decision.

The Responsible Official described within the DN how the Bybee Project does not adversely affect endangered or threatened species or their habitat. DN at 15. The Responsible Official stated that the project's actions may affect, and is not likely to adversely affect NSO, will not affect listed threatened or endangered aquatic species, and will not affect listed threatened or endangered plant species. DN at 15 and 16.

In addition, the Responsible Official stated the Pacific fisher habitat requirements and baseline conditions within the EA at 195 through 197. The EA also displayed that the Rogue River-Siskiyou NF provides high-quality denning and resting habitat, regular denning and resting habitat, and foraging habitat for the southern Oregon Cascades population (Table 33). EA at 198.

The Responsible Official displayed the direct and indirect effects to fisher habitat (e.g., large trees, denning, resting and foraging habitat, large snags and coarse woody debris and habitat and canopy cover) within the EA at 203 through 209. He concluded that the official determination of effects was "may adversely impact individuals or habitat, but would not likely result in a loss of viability within the project planning area, Rogue River-Siskiyou National Forest, nor cause a trend to federal listing or a loss of species viability range wide" for Pacific fisher. EA at 209.

The cumulative effects to Pacific fisher were discussed within the EA at 209 through 211. All actions since 2000 and reasonably foreseeable actions on federal and private lands within the southern cascades Pacific fisher population were analyzed within cumulative effects analysis.

The Responsible Official stated within the EA at 204 that all high quality denning and resting habitat would be retained across all alternatives. In addition to maintaining legacy trees distributed across the landscape, the Responsible Official stated that the Bybee Project would maintain quality habitats and structure to provide for life-history requirements of fisher and other late-successional species.

The Responsible Official stated within the DN Attachment 3 at 33 that the Bybee Project proposed to impact a maximum of 1,317 acres, which is less than 0.30% of the available foraging in the fisher population area. When combined with foraging areas on private lands the Bybee Project would have negligible cumulative impacts to forage habitat or to fisher viability range wide.

Appellant Statement #18: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the effects to wildlife. Specifically, the appellant is concerned that the project will cause potential significant effects to migratory birds. The appellant states that the "FONSI cannot make a reasoned finding of significance from such a vague and abbreviated analysis..." OW at 8.

Response: I find the Responsible Official adequately addressed the FONSI criteria and included appropriate analyses and consideration of effects of the project on neo-tropical migratory birds (NTMBs).

See response to Appellant Statement #15 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately documented his decision in a FONSI.

The Responsible Official outlined the Bybee Project's effects to NTMB within the Neo-Tropical Migratory Birds section of the EA and discussed further detail in the EA Appendix F2. EA at 235 through 238; EA Appendix F2 at F2-54 through F2-57.

The EA at 236 stated that the analysis of NTMBs is best carried out on an eco-regional scale "... if one provides all of the habitats to some degree over some landscape, then you will probably be taking care of most if not all of the land birds in that habitat. The conservation emphasis is on ecosystems, habitats, and habitat conditions, not species." In addition, the Responsible Official chose this type of analysis because of the high mobility of birds, their year-to-year population fluctuations, and their variability of occurrence across the landscape. DN attachment 3 at 30.

Bird conservation objectives are tied to focal species that represent habitat attributes and/or ecological functions of various forest age classes. EA at 236. The EA at 237 stated that the effects to NTMBs are variable depending on the habitat associations of the individual species. Impacts to habitat for some species may occur from vegetation management of forests; however, due to the limited amount of area affected by the action alternatives for this project, relative to the Forest, the Responsible Official determined that the effects to NTMBs are expected to be minimal.

The Responsible Official responded to this concern within the DN Attachment 3 at 29 & 30. His response stated that further quantified analysis regarding impacts to NTMBs was unnecessary given the minor adverse impacts to identified focal species within the project planning area. In

addition, the Responsible Official stated that some species are beneficially affected because of habitat associations being enhanced through treatments. The Bybee project is not expected to alter long-term habitat conditions in any proposed timber units, which means that after project implementation, the Bybee project planning area will continue to provide the same degree of varying habitat over the landscape as prior to project implementation.

Appellant Statement #19: The appellant asserts that the proposed action will reduce forest density, thus reducing detrimental habitat to the Pacific fisher. The appellant states that the Pacific fisher is less impacted by wildfires than logging. OW at 11.

Response: I find the Responsible Official adequately disclosed impacts to the Pacific fisher from the activities in the Bybee Project.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

See response to Appellant Response #17 to see how the Responsible Official addressed the Bybee Project's effects to Pacific fisher.

The EA at 204 disclosed that, based on the alternative selected, management prescriptions within the Bybee Project may reduce denning and resting habitats and foraging habitats (Table 35).

A portion of the purpose and need (EA at 3) is to reduce the risk to forest resources from high-intensity fire. The EA at 4 stated that several variables (e.g., disease, overstocked stands) increase the potential for high-intensity wildfires. Two areas (the northeast corner of the project planning area bordering Crater Lake National Park, and the northwest corner that borders the Rogue-Umpqua Scenic Byway and includes the Upper Rogue Scenic River corridor) currently have approximately 7 tons of fine fuels per acre (fuel model TU5). Under moderate burning conditions (mid-flame wind speed of 4 mph) wildfire passing through these fine fuels would develop flame lengths of approximately 7 feet that would likely reach the forest canopy via the existing ladder fuels, leading to a loss of high quality habitat and other forest resources. Overstocked stands can also increase the potential for high-intensity wildfires.

The desired condition described in the EA at 5 was to have less overstocked stands, reducing the risk to forest resources from high-intensity fire. The Responsible Official described within the EA at 203 that high severity fire would likely adversely affect late-successional habitat and late successional species including fisher by removing down material, small trees that contribute to the stand structure, and killing large trees that may be used as rest or den sites. This disclosure outlined why the Responsible Official utilized fuel reduction activities the way he did.

The Federal Wildland Fire Policy (USDI et al. 2001) provides guidance that recognizes and incorporates the role of wildland fire as an essential ecological process and natural change agent into the planning process. This guidance was incorporated within the EA at 5. The Responsible Official stated that after fuels treatments are implemented in the project planning area, unplanned wildland fires would be able to move through the area with less likelihood of destroying valuable forest resources.

The EA at 205 through 208 provided a detailed discussion on potential effects of fishers and acres of fisher habitat affected due to the proposed project. The response to Appellant Statement #17 summarizes this discussion.

Appellant Statement #20: The appellant asserts that the Responsible Official disregarded the best available science, specifically Oregon state official's science comments, concerning overemphasizing big game thermal/hiding cover. MC at 2.

Response: I find the Responsible Official considered all public comments, including the Oregon Department of Fish and Wildlife comments. In addition, the Responsible Official used the best available science when displaying the big game thermal/hiding cover effects.

The regulation at 40 CFR 1500.1(b) advises that accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives. Forest Service policy (June 20, 2007) directs the Responsible Official to base their decision on technically sound science.

Alternatives 3 and 4 (DN Attachment 3 at 8) addressed concerns for big game thermal and hiding cover within a known migration route by retaining patches of hiding cover. Alternative 4 also increased the forage component for big game on 211 acres for a period of 5 to 15 years. In addition, (EA Appendix F2 at F2-45) shelterwood treatments would reduce canopy closure to less than 40 percent on 66 acres (3 units) under Alternative 3. None of these units fall within Big-Game Winter Range but would likely provide additional forage for big game because they would allow grasses, forbs, and shrubs to prosper due to increased sunlight on the forest floor.

The Responsible Official supplied additional details concerning big game thermal and hiding cover within the EA at 151 through 156 and EA Appendix F2 at F2-35 through F2-46. The Responsible Official outlined the Forest Plan Big-Game Winter Range habitat requirements and described how much of the Project Area needed to accomplish this within the EA at 152. The Bybee Project's effects to thermal cover were stated within the EA at 154 through 156 for each alternative.

The Responsible Official also displayed how Alternative 1 and 2, where less of an emphasis was placed on thermal cover, affected Big-Game Winter Range. EA at 154.

The Responsible Official disclosed his consideration of public comments within an attachment to the DN. DN Attachment 3. Here he displayed his response to the appellant's concern. DN Attachment 3 at 8. The Responsible Official pointed out that different alternatives are created to address concerns that were brought up during the NEPA process and Alternative 3 and 4 was created to address thermal and hiding cover for big game. DN Attachment 3 at 8.

Appellant Statement #21: The appellant asserts that the Responsible Official did not use high quality information and accurate scientific analysis concerning the Pacific fisher. The appellant states that the EA is misleading when it says logging to 60% canopy cover will maintain fisher habitat because fishers prefer forests with canopy cover exceeding 60%. OW at 11. The appellant states that is it unclear what the EA meant by "the fisher's need for denning and resting

in forests with high canopy cover (~80%) can be adequately met at the fine scale (1-acre)." OW at 12.

Response: I find that the Responsible Official utilized the best available science within the EA concerning the Pacific fisher and adequately analyzed the Bybee Project's effects to Pacific Fisher.

The regulation at 40 CFR 1500.1(b) advises that accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives. Forest Service policy (June 20, 2007) directs the Responsible Official to base their decision on technically sound science.

The EA at 205 disclosed recent research (Aubry and Raley 2006, Yeager 2005, and Zielinski et al. 2004) that was used in determining potential effects on fishers of modifying canopy closure. The EA at 207 stated that Alternative 3 would maintain all fisher denning and resting habitats by retaining structure and canopy closure at 60 percent or greater in these habitats.

The Responsible Official supported the above statement in the EA at 205 with research from northern California and southern Oregon (Aubry and Raley 2006, Yeager 2005, and Zielinski et al. 2004) that focused on the fine scale habitat characteristics (generally 1 acre or less) of resting and denning sites. Retention of large live trees and snags that are clumped and large logs where there is a multi-storied stand component and 80 percent or greater overall canopy closure at a fine scale (less than 1 acre) provides opportunities for fishers to locate suitable den and rest sites.

In addition, the DN at 10 included a Project Design Criteria that required avoidance of project impacts to all large legacy trees that have the potential to form cavities and decadent structure as well as a requirement for a District wildlife biologist to conduct a walk through survey prior to implementation to identify the highest-quality trees (i.e., largest, oldest, highest likelihood of decadence) to be retained as rest structures. These project parameters should ensure adequate protection of decadent/legacy tree structure, minimizing project effects to Pacific fisher.

The Responsible Official included wildlife snag and down woody material requirements to be included as a part of the silvicultural prescription for each treated stand in order to meet down and dead wood habitat requirements. DN 10. In areas lacking adequate amounts of snags and down woody material, green trees may be girdled or felled. DN at 10.

Included in the DN (DN at 11) the Responsible Official decided to pre-commercially thin 10 units instead of treating them with overstory removal or mechanical girdling treatments (Modification 2) to ensure this habitat (wildlife snag and down woody material) is retained. The EA at 22 provided snag requirements by land allocations as required in the Forest Plan, as amended.

See response to Appellant Statement #17 for more details about where the Responsible Official disclosed project effects to Pacific fishers.

Appellant Statement #22: The appellant asserts that the EA makes "repeated and unsupported statements about the effects of natural processes like wildfire on wildlife." The appellant states

"if the FS thinks fire will harm habitat under the no action alternative, they must honestly disclose similar adverse effects under the action alternatives." OW at 13.

Response: I find that the Responsible Official adequately considered the Bybee Project's effects on wildfire.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The fire effects to wildlife in the "no action" alternative coincide with what was presented as the existing fuels and vegetation condition. EA Appendix A at A-20 through A-30 and the response to Appellant Statement #2 display where the Responsible Official addressed how the Bybee Project met the purpose and need of the project, reducing the risk of high-intensity wildfires. Late-successional, spotted owl and pileated woodpecker habitats tend to have higher fuel loads and therefore are at higher risk of stand replacing wildfires. The impacts to these habitat types were therefore emphasized under the "no action" alternative. EA at 126, 132,139, 203, and 226; EA Appendix F2 at F2-14.

One of the identified purpose and needs of the Bybee Project was to reduce the risk of forest resources from high-intensity fire. EA at 3. The EA provided analysis and literature citations, as well as professional judgment, indicating that the proposed treatments will reduce fire intensity (severity) and provide opportunities to manage both desirable and undesirable wildfires in the future. EA at 179 through 182, and D-32 through D-34. The EA stated that activity fuels will be treated (using one or more of several options) based on a post-harvest evaluation to the extent necessary to "achieve an acceptable fire and fuels risk". EA at 1 and C-26 through C-27. Proposed commercial thinning is expected to reduce potential for running crown fire. EA at 179 through184, D-22, and D-32 through D-34. The EA acknowledged that a short-term increase in fire behavior could be expected while slash remains in the unit, but that this increase would be ameliorated through treatment of residual fuels. EA at 179 through 184 and D-22. Proposed commercial thinning units may also have an increase in solar radiation and air movement until canopies close. EA at 179 through 184 and D-23. Within "natural fuels" units, analysis shows a reduction in flame lengths and increased canopy base height.

Therefore, the effects to wildlife under the action alternatives were supported when considering the fuels reduction analysis within the EA Appendix A-25, A-26, and A-30. The effects to wildlife were analyzed under the conclusion that proposed treatments would reduce and not eliminated the risk of high-intensity wildfire. The EA stated that thinning spotted owl dispersal habitat would likely contribute to reducing the rate of spread and intensity of wildfire in the action alternatives and result in a more fire resilient landscape. EA at 141, 142; Appendix F2 at F2-14-16.

Appellant Statement #23: The appellant asserts that the EA did not disclose the effects of more open stands on spotted owls. Specifically, the EA did not address how spotted owls dispersing through less dense forests are more vulnerable to predators, how spotted owls are more vulnerable to weather extremes such as heat, cold, wind and rain, and how spotted owls are less likely to find food while dispersing. OW at 15.

Response: I find the Responsible Official adequately considered the effects of harvest activities on dispersing spotted owls.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The Responsible Official displayed the effects to the spotted owl's ability to disperse post-treatment within the EA. EA at 141, 142; EA Appendix F at F1-33, 45-47. Implementation of activities that treat and maintain the function of spotted owl dispersal habitat were not anticipated to diminish the ability of spotted owls to mover through treated stands. USFWS Re-Initiation Wildlife Consultation at 8; EA at 141 and 142; EA Appendix F at F1-46

The EA stated the benefit to spotted owls from opening dispersal habitat would occur when thinning very dense stands, improving the ability for spotted owls to disperse and forage within these stands. The EA went on to clarify that these very dense stands are questionable as functioning dispersal habitat due to the inability of the spotted owl to currently fly in and through them; these dense stands were defined as stem exclusion and having up to 100 percent canopy closure. EA at 141 and 150; EA Appendix F at F1-46.

The DN Attachment 3 at 39 also addressed the appellant concern on the benefits to spotted owl critical habitat by providing additional flying space. Information contained in the EA supported the assertion that additional flying space is beneficial. EA Appendix F at F1-31 to F1-33. Furthermore the Fish and Wildlife Service have agreed with this professional judgment as demonstrated through their concurrence letters. USFWS Re-Initiation Wildlife Consultation at 11.

See also response to Appellant Statement #15 for more details.

Appellant Statement #24: The appellant asserts that the EA did not take a hard look at the effects on wildlife when it comes to reducing dense forests and abundant dead wood. Specifically, the appellant states that the EA does not describe the existing condition, the effects, and the cumulative effects to this resource. OW at 17.

Response: I find the Responsible Official adequately considered the effects on wildlife, concerning the existing condition, cumulative effects to dense forest habitat, and abundant dead wood.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The Responsible Official displayed the effects to snags and down wood. The existing condition was displayed within the EA and the DN. EA at 22 through 24, DN Attachment 1 at 11; DN Attachment 3 at 21 and 22; EA Appendix F2 at F2-6, 11, 13, 14); the desired conditions were stated (DN Attachment 1 at 11); Historic Reference Condition (Historical Range Variability) was displayed (EA Appendix F2 at F2-7); and the effects (direct, indirect and cumulative) were discussed as well. EA Appendix F2 at F2-14 through F2-16, F2-33 through F2-35.

The Responsible Official displayed his analysis methodology for snag and down wood analysis within the EA at 22 and DN Attachment 3 at 22. Here he recognized the limitation of the Forest Plan and best available science (e.g. DecAID) when it came to snag and down wood analysis and utilized a more refined approach (landscape stratification base on plant association groups). The Responsible Official stated that Forest Plan snag minimums would be met and snag and down woody material requirements will be included within the silvicultural prescriptions. EA at 23. Where areas lack adequate snag and down woody materials, green trees may be girdled or felled. DN at 10.

In addition, the EA described project design criteria (DN/FONSI Attachment 1 at 11; Attachment 3 at 19, 22; Appendix F2 at F2-16; EA at 22 through 24, 58, 66 through 74, 81, 85, 108, 124 through 125, 127 through 128, 125 through 151, 163, 168 through 170, 213 through 215, 217 through 232, 234, 235, 237, and 238); and pre and post treatment monitoring to insure down wood levels will meet or exceed the Forest Plan standard. EA at 23, 60, 205, and 206; DN Attachment 3 at 22.

Specifically, the EA stated that, whenever possible, creation of ≥2 snags per acre (over 20 inches DBH within commercially treated units) should be part of each silvicultural prescription where large snags are determined to be deficient prior to harvest based on desired PAG levels. EA at 23. The Responsible Official committed to these implementation criteria within the Implementation Plan attached to the DN. DN at 2. The Snag Creation and Down Woody Material section of DN Attachment 1 outlined what the Responsible Official committed to, thus assuring that Forest Plan guidelines will be met and in most cases, exceeded given the higher number of snags that the PAG levels describe as a desired condition. DN Attachment 1 at 10 through 11.

Cumulative Effects

Appellant Statement #25: The appellant asserts that the EA did not adequately disclose or consider cumulative effects. Specifically, the appellant is concerned about the cumulative effects on climate change, cumulative loss of owl habitat, and the cumulative effects to soil. OW at 9.

Response: I find that the Responsible Official adequately displayed the Bybee Project's cumulative effects analysis concerning climate change, owl habitat, and soils.

The regulation 40 CFR 1502.16(d) directs the agency to disclose the environmental effects (direct, indirect and cumulative) of the proposed action and any alternatives. Regulation at 40 CFR 1508.7 defines "cumulative impact" as "Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Analysis of cumulative effects is to be conducted as directed by regulation at 36 CFR 220.4(f).

The Responsible Official described regulation related to cumulative effects analysis, how cumulative effects were analyzed, and projects that were considered within the analysis of cumulative effects. EA at 63-64. Cumulative effects were discussed and disclosed within the

Bybee EA. EA at 89, 97, 123, 129, 151, 155, 165, 171, 190, 191, 195, 209, 213, 215, 231, 235, 239, 245, 247, 251, 253, 255, 261, and 267. This included cumulative effects for the soil, water, wildlife, Wilderness, and visual resources. In addition, the Responsible Official also described the cumulative effects to forest fuels, air quality, non-native plants, neo-tropical wildlife, economics, cultural resources, recreation and human safety, Wild and Scenic Rivers, and climate change.

Cumulative effects related to climate change were disclosed within the EA. EA at 66. See response to Appellant Statement #26 for additional details on where the Responsible Official displayed the Bybee Project's effects to climate change.

The area for the cumulative effects analysis for NSO was defined as the area within a 2.4-mile buffer around the Bybee Project Area; the buffer included the entire home range of any spotted owl that would overlap with the project planning area. EA at 150; EA Appendix F, Terrestrial Wildlife Biological Evaluation at F1-52. Besides the National Forest System, Crater Lake National Park represents the only other land ownership in the cumulative effects analysis area. EA at 151; EA Appendix F, Terrestrial Wildlife Biological Evaluation at F1-53. Existing condition of spotted owl habitat (current condition of vegetated stands) was provided within the EA. EA at 136.

The Responsible Official displayed that no alternative was expected to affect the ability of spotted owls to persist in the watershed. EA at 140. Alternatives were expected to affect less than 1% (Alternatives 2 and 3) to 0% (Alternative 4) of dispersal habitat. The EA indicated that the Bybee Project, in combination with the Cascade Managed Stands project, could implement vegetation management in up to 6,541 acres within the cumulative effects analysis area; however, the majority of activities would be density management in small-diameter stands that do not currently provide spotted owl habitat; the Cascade Managed Stands project would not add additional acreage to the maximum 133 acres of acres of NRF habitat proposed to be treated under the action alternatives. EA at 151.

The EA analysis indicated that cumulatively, the actions within the cumulative effects analysis area (under all alternatives) were not expected to affect NRF habitat or spotted owl viability, although the EA acknowledged that the potential downgrading of 133 acres of NRF habitat under Alternative 2 and no acres under Alternatives 3 and 4. EA at 151. The cumulative effects analysis also took into account the other ownership within the cumulative effects analysis area and the fact that the National Park Service does not plan activities that would cumulatively affect spotted owl habitat. EA at 151.

The analysis of cumulative effects on soils correctly defined the cumulative effects analysis area as the proposed treatment units and proposed temporary roads within the Bybee project area. EA at 122. The EA displayed Tables C-5 and C-8 in Appendix C showing a unit-by-unit summary of existing and post-treatment detrimental soil condition. EA at 122; EA Appendix C at C-26 and C-8. The EA stated that no other past, present or reasonably foreseeable projects would affect the soils within the cumulative effects analysis area. EA at 123.

Climate Change

Appellant Statement #26: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the effects to climate change. OW at 5. The appellant states that logging will transfer carbon from the forest to the atmosphere and exacerbate significant global cumulative effects of global climate change. "The adverse climate effects of logging have implications for several of the NEPA significance factors, including: public health and safety, controversial effects, unique and uncertain effect, threatens violation of laws intent to protect the environment, cumulative impacts, threatened & endangered species, historic properties, etc." OW at 5.

Response: I find that the Responsible Official adequately supported a FONSI and adequately considered the FONSI criteria. In addition, the Responsible Official adequately displayed the Bybee Project's effects.

See response to Appellant Statement #15 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately documented his decision in a FONSI.

The Responsible Official stated that the effects analysis documented throughout Chapter 3 of the EA demonstrated that none of the project impacts were expected to be significant, either individually or cumulatively. DN at 11.

Since greenhouse gasses mix readily into the global pool of greenhouse gasses (GHGs), it is not currently possible to ascertain the effects of emissions from single or multiple sources (project). Also, because Forest Service projects are extremely small in the global atmospheric CO₂ context, it is not presently possible to conduct quantitative analysis of actual climate change effects based on individual or multiple projects. The proposed action was identified to have minor cause-effect relationships to GHG emissions or the carbon cycle, and was determined to be of such a minor scale at the global or even regional scale, that the direct effects would be meaningless to a reasonable decision regarding this project. EA at 264. The analysis indicated that the direct and indirect effects of Bybee Project would be insignificant because there would be minor amounts of vegetation treatments and disposal of brush and slash would be minimal at the scale of affected watersheds. EA at 265.

The EA recognized that the effects of human activity on climate change, and thereby on human health, are cumulative; however, the EA is clear that these cumulative effects are due to many factors, most of which are outside of the Forest Service's control. As GHG gasses are integrated across the global atmosphere, it is not possible to determine the incremental cumulative impact on global climate from emissions associated with any number of particular projects. Nor is it expected that such disclosure would provide a practical or meaningful effects analysis for local project decisions. EA at 266.

Snags and Down Wood

Appellant Statement #27: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the dead and down wood analysis of the Bybee Vegetation

Management Project. OW at 6. The appellant states that logging will capture tree mortality that will reduce the recruitment of snags and dead wood, resulting in a shortage of snags and down wood in the future. The appellant asserts that these affects show NEPA significance "because it violate[s] requirements intended to protect the environment." OW at 6.

Response: I find that the Responsible Official appropriately determined that there were no significant effects that would require preparation of an environmental impact statement (EIS).

See response to Appellant Statement #24 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #24 for further detail on how the Responsible Official adequately displayed the effects to snags and down wood. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately documented his decision in a FONSI.

Throughout the EA, effects to snags and down wood are documented. For example, in the section on thinning and wildlife, the EA documented that thinning reduces competition mortality, which has an effect on future snag recruitment and burning has the potential to both reduce snags (consumption of current snags) and create snags through fire-induced mortality. EA at 66 and 67, 141 228 and 229. The EA also documented that stands begin to experience competition mortality at a relative density of 0.55, while individual tree competition begins at 0.25 relative density. Thinning is expected to reduce stands to about 0.3 to 0.4 relative density. EA at 66 and 67. Given the growth rates assumed for this project (FVS data), it can be expected that stands would growth to a relative density of 0.55 in about 30 years. Once stands returned to 0.55 relative density, tree competition would begin to occur and snags would again begin to occur. EA at 66 and 67.

The EA recognized that the Forest Plan direction for snags and coarse down wood objectives has been updated by the best available science. EA at 22. Because of this, the Responsible Official developed a landscape stratification based on plant association groups (PAGs) to determine levels of snags and down woody material in forest. These desired levels of dead wood were modeled with consideration of the DecAID advisory system. This analysis used the most up-to-date information for the Rogue River-Siskiyou National Forest. The PAG recommends higher levels of down wood and snags than the Forest Plan. By using the PAG data, the Bybee Project would meet and far exceed the standards of the Forest Plan. DN at 22; DN Attachment 3 at 35 and 36.

The EA states that if snag retention falls below Forest PAG guidelines for some proposed units, snag surveys would identify the need to create snags. EA at 205 and 206. In addition, it is recognized that snag levels are typically measured at a larger scale, such as at a 100-acre level. Forest Plan at 4-168, 4-238, 4-239, 4-412, and 4-216.

Mitigations and monitoring will be in place to insure snag levels meet desired levels of dead wood and snag levels recommended for each PAG. EA at 60, 205, and 206; DN at 22. Design criteria are also in place to discourage unnecessary felling snags. DN Attachment 3 at 19.

Please see response to Appellant Statement #24 for further detail about how the Responsible Official addressed Bybee Project's snag and down wood effects.

Appellant Statement #28: The appellant asserts that the EA does not disclose the adverse effects of the exceptions to protecting legacy trees for fishers. The appellant states that the EA doesn't disclose how many hazard trees are going to be taken per unit, near landing, other working areas, and along other haul routes. OW at 13.

Response: I find the Responsible Official considered the effects of the legacy tree removals (i.e. largest, oldest, highest likelihood of decadence) and hazard trees and provided mitigations within the project design criteria that reduce the potential for incidental removal of this important habitat.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The DN at 5 addressed concerns related to the removal of large trees, and potential impacts of that removal to various wildlife species, which were brought up during both the scoping and comment periods. Impacts to wildlife species, including fishers, was also addressed in the DN at Attachment 3 at 19. The Bybee EA disclosed that large tree removal has the potential to adversely affect some wildlife species, including NSO, Pacific fisher, Pallid bat, Townsend's bigeared bat, Fringed myotis, Johnson's hairstreak, pileated woodpecker, American marten, and some species of neotropical migratory birds. However, project design criteria are incorporated into the Bybee Project to avoid removal of large trees with decadent structure, including legacy trees

Project design criteria were applied to the Bybee Project that requires avoiding impacts to all legacy trees (i.e., largest, oldest, highest likelihood of decadence). Analysis in the Bybee EA concluded that these project design criteria would provide adequate protection of legacy tree structure from proposed unit treatments. In addition, the Responsible Official decided to precommercially thin 10 units instead of treating them with overstory removal or mechanical girdling treatments (*Modification 2*) to ensure this valuable habitat is retained. Also, the decision incorporated the project design criteria in which a wildlife biologist will conduct a walk-through survey prior to implementation to identify legacy trees (i.e., largest/oldest trees available with the potential to form cavities and decadent structure) for protection. EA at F1-112.

The EA at 59 disclosed that if large, decadent trees or large snags with cavities are detected in suitable fisher denning and resting habitats that must be felled for safety reasons, a March 1 to July 30 restriction will be implemented for the unit. The EA at 205 disclosed that the reduction of large snags can reduce the availability of fisher den site and that because human safety is priority, snag retention could potentially fall below Forest PAG guidelines within some proposed units; however, snag creation is proposed if post-harvest surveys determine additional snags are needed.

The removal of hazard trees and legacy trees were displayed in the cumulative effects section of the EA. The EA at 210 disclosed cumulative acres impacted from past, present and foreseeable actions in the range of the southern Pacific fisher population with the qualification that the acres reported are likely to overestimate acres affected.

Additionally, some of the actions reported in Table 35 are less likely to have an effect on fishers than others. EA at 210. For example, nearly 13,500 acres of denning and resting habitat

maintained on the High Cascades Ranger District is associated with either road maintenance and danger tree removal or precommercial thinning. Impacts from removing occasional single trees along a road side, or thinning very young trees under an older stand is probably much less likely to have an impact on fishers than reducing canopy closure in stands of high-quality denning and resting habitat if it is within a female's home range.

Please see response to Appellant Statement #17 for further detail about how the Responsible Official disclosed effects of Pacific fisher.

The Responsible Official stated that the hazard trees that will be cut will be minimized by project design criteria or mitigation measures. Also, the effects displayed within the EA showed that the Bybee Project's effects of Pacific fisher may adversely impact individuals or habitat, but would not likely result in a loss of viability within the project planning area, Rogue River-Siskiyou National Forest, nor cause a trend to federal listing or a loss of species viability range wide. DN at 14.

Appellant Statement #29: The appellant asserts that the EA did not show the effects of logging on the future recruitment of dead wood. "Future wood recruitment under the action and non action alternatives should be compared to the best available information on the need to wildlife, e.g., DecAID 50-80+% tolerance levels." The appellant states that a long-term stand simulation showing dead wood recruitment with and without logging is required. OW at 15 through 16.

Response: I find that the Responsible Official adequately displayed the snag and down wood effects of the Bybee Project.

See response to Appellant Statement #24 for the pertinent law, regulation, and policy. See response to Appellant Statement #24 for further detail on how the Responsible Official adequately displayed the effects to snags and down wood. Forest Service Handbook direction states that an effects analysis can be either qualitative or quantitative. FSH 1909.15, 12.3

The Responsible Official displayed the Bybee Project effects (direct, indirect and cumulative) within the EA and the EA Appendix F2. EA Appendix F2 at F2-14 through F2-16, F2-33 through F2-35. EA Appendix F2-66 displayed the snag and coarse wood materials that would be retained after the implementation of the Bybee Project. The Responsible Official stated within the DN Attachment 3 at 22 that in areas where additional snags and down woody material is desired, green trees may be girdled or felled.

Throughout the EA, effects to snags and down wood are qualitatively documented. FSH 1909.15, 12.3. For example, in the section on thinning and wildlife, the EA documented that thinning reduces competition mortality, which has an effect on future snag recruitment and burning has the potential to both reduce snags (consumption of current snags) and create snags through fire-induced mortality. EA at 66 and 67, 141 228 and 229. The EA also documented that stands begin to experience competition mortality at a relative density of 0.55, while individual tree competition begins at 0.25 relative density. Thinning is expected to reduce stands to about 0.3 to 0.4 relative density. EA at 66 and 67. Given the growth rates assumed for this project (FVS data), it can be expected that stands would growth to a relative density of 0.55 in about 30 years. Once stands returned to 0.55 relative density, tree competition would begin to occur and snags would again begin to occur. EA at 66 and 67.

In addition, the EA described project design criteria (DN/FONSI Attachment 1 at 11; Attachment 3 at 19, 22; Appendix F2 at F2-16; EA at 22 through 24, 58, 66 through 74, 81, 85, 108, 124 through 125, 127 through 128, 125 through 151, 163, 168 through 170, 213 through 215, 217 through 232, 234, 235, 237, and 238); and pre and post treatment monitoring to insure down wood levels will meet and likely exceed the Forest Plan standard. EA at 23, 60, 205, and 206; DN Attachment 3 at 22.

Please see response to Appellant Statement #24 and #27 for further detail about how the Responsible Official addressed Bybee Project's snag and down wood effects.

Roads and Soil

Appellant Statement #30: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the Bybee roads analysis. The appellant states that the "Bybee Project involves road construction with potentially significant long-term effects to soil, water, carbon, and habitat." The appellant is specifically concerned about the road between unit 23 and 51. The appellant asserts that the EA failed to take a hard look at the site-specific impacts from roads. OW at 6. "An EIS is needed to provide a more careful analysis of sediment production from roads." OW at 6.

Response: I find the Responsible Official adequately analyzed the project in an EA and documented his decision in a FONSI. The Responsible Official adequately disclosed the effects from the increased road use from the Bybee Project.

See response to Appellant Statement #15 for the pertinent law, regulation, and policy. Also, see response to Appellant Statement #15 for further detail on how the Responsible Official adequately utilized a FONSI.

The Responsible Official reviewed the EA and found that the environmental effects of the project will not have a significant effect on the quality of the human environment and therefore an environmental impact statement (EIS) would not be prepared. DN at 15 through 20.

All road construction proposed within the Bybee EA and authorized by the DN is temporary road construction. EA at 32, 40 and 48; DN at 2. Temporary roads will be rehabilitated after completion of their intended use, minimizing the long-term effects the roads have on the landscape. EA at 94; EA Appendix C at C-30 through C-43.

Maps displaying the approximate locations were included in the EA and facilitated site-specific analysis (tables C-6 [EA Appendix C at C-30] and C-10 [EA Appendix C at C-37]), identified designations and site-specific information on proposed new temporary roads. Appellant does not identify their specific concerns or the specific roads they are concerned about. It appears to me that the appellant is referring to Temporary Road 2B, the road utilized by unit 51. Unit 23 does not appear to utilize a temporary road. Site-specific effects and operational concerns related to Temporary Road 2B were analyzed within Appendix C. EA Appendix C at C-37. The EA Appendix C stated that the soil resource around Temporary Road 2B has a low risk of effects.

The majority of these new temporary road segments would be constructed over stable soils and relatively flat terrain. EA at 118; EA Appendix C at C-37.

The hydrology specialist's report indicated that sedimentation from temporary roads is not a concern related to Alternatives 3 and 4 because there are no temporary roads in Riparian Reserves. EA Appendix B at B-27.

Appellant Statement #31: The appellant asserts that the Responsible Official violated the FONSI criteria when it comes to the effects to wetlands and meadows. Specifically, the appellant is concerned about the potential significant effects on wetlands and meadows from logging units 10, 11, 14, and the associated road construction. OW at 8.

Response: I find that the Responsible Official appropriately used a FONSI within the Bybee Project. In addition, the Responsible Official adequately displayed the project's effects to the wetlands and meadows, especially when it comes to units 10, 11, 14, and the associated temporary road construction.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The Responsible Official displayed Bybee Project's effects to soils within the EA at 98 through 123. The Responsible Official stated that the treatments for units 10, 11, and 14 will be deferred (Modification 1), meaning that the Bybee Project's effects will be minimal or similar to Alternative 1 effects because of the lack of treatment activity. The effects of Alternative 1 on the soil resource was displayed within the EA at 113 through 114.

Appellant Statement #32: The appellant asserts that the DN violated the Forest Plan and the NWFP standards where it relates to soils. The appellant states that the Forest Service intends to mitigate for past and proposed additional soil compaction by applying restoration treatments that break up compacted soils. OW at 9. Specifically, the appellant is concerned about the Forest Plan restriction that restricts displacement or compaction on more than 20% of an activity area and the NWFP standard WR-3 - do not use mitigation or restoration as a substitute for preventing habitat degradation. The appellant asserts that the Project exceeds the 20% threshold and is trying to justify exceedance with restoration activities. OW at 10.

Response: I find that the Responsible Official adequately considered Forest Plan soil standards and NWFP standard WR-3.

The Forest Plan states that no more than 10% of an activity area should be compacted, puddled, or displaced *upon completion* of a project (excluding permanent roads) and 20% or less of an activity area should be displaced or compacted resulting from previous actions (including roads and landings). The NWFP standard WR-3 states: "(d)o not use mitigation or planned restoration as a substitute for preventing habitat degradation." However, this standard only applies to riparian reserves and does not apply to the upland units.

Timber harvest is allowed on lands that were degraded in the past, so long as the unit will be rehabilitated, for example, through soil restoration treatments. EA at 122; FSM 2520 R-6 Supplement 2500-98-1. The Responsible Official stated that disturbing already disturbed areas

does not add to the total disturbed acreage. DN at 5. For example, degrading one acre of already degraded soil doesn't count as two total acres of degraded soil; it still counts as one acre of degraded soil.

The Responsible Official stated that implementation of modified Alternative 3 will detrimentally disturb approximately 200 acres. Approximately 80 to 140 acres, which will be on previously undisturbed ground, will be within the 20% threshold (NWFP standard). DN at 5. The Responsible Official stated that all activity units were assessed for current soil conditions and current levels of disturbance was disclosed. EA at 103 through 105. He stated that, where the 20% threshold was exceeded in activity units, harvest activities would not cumulatively add to detrimental disturbance and active soil restoration would move these sites towards a net improvement in soil quality over time. DN Attachment 3 at 13; EA at 113 through 122. This is display in Table C-5 of the EA Appendix. EA Appendix C at C-26 through C-29.

In addition, the Responsible Official stated that a resource specialist will be on site during implementation to ensure that proper soil mitigation measures and soil restoration actions are applied. DN at 5.

Appellant Statement #33: The appellant asserts that the EA failed to provide accurate analysis and disclosure of sediment production from roads. The appellant states that the EA's conclusion from the Luce and Black (2001) study saying that traffic on these roads do not increase sediment production is misleading. OW at 16.

Response: I find that the Responsible Official adequately displayed the soil effects from the Bybee Project.

The regulation at 36 CFR 220.7(b)(3)(iv) directs the agency to discuss the impacts of the proposed action and any alternatives.

The Responsible Official displayed Bybee Project's soil effects within the EA at 98 through 123. The majority of the new temporary road segments would be constructed over stable soils and relatively flat terrain. EA at 118; EA Appendix C at C-37. The EA stated that the majority of erosion in the project planning area is associated with existing roads. EA at 102. All road construction proposed within the Bybee EA and authorized by the DN is temporary road construction. EA at 32, 40 and 48; DN at 2. Temporary roads will be rehabilitated after completion of their intended use, minimizing the long-term effects the roads have on the landscape. EA at 94; EA Appendix C at C-30 through C-43.

The Responsible Official clarified his use of the Luce and Black (2001) research within the DN Attachment 3 at 23 through 24. He stated that "the scientific study relied upon (Luce and Black 2001) noted that proscription of wet weather hauls is an effective BMP for reducing sediment production stemming from haul activities (Revised Sterling Sweeper BLM EA, page 3-63)." The Responsible Official pointed out that in order to minimize the effect of sedimentation, no wet weather hauling will occur within the Bybee Project. DN Attachment 3 at 23.

Appellant Statement #34: The appellant asserts that the Forest Service's application of the 300-foot buffers off of existing roads to determine the boundaries of potential wilderness is

unsupported by logic and evidence. The appellant would like to see the EA analyze smaller buffers because this would be consistent with other Forest Service regions. OW at 17.

Response: I find that the Responsible Official adequately considered the effects of the Bybee Project on PWAs.

The FSH at 1909.12, Chapter 70 and 71, addresses lands suitable for possible designation as potential wilderness areas and identifies inventory criteria. Regional direction states that Forests should analyze likely effects of the proposed actions on resource values within "any area that is not an IRA [inventoried roadless area], but does not have classified roads in it" and could be considered to contain "roadless character."

Portions of the project area overlap an area several environmental organizations would like considered for Wilderness designation. This area was previously reviewed as part of the Roadless Area Review and Evaluation (RARE II) process in the 1970's. In 1980, Congress transferred management of about 22,000 acres of adjacent land to the National Park Service as part of the Crater Lake National Park. In 1984, Congress released the remaining acres identified under RARE II back to multiple-use management direction.

The Forest reviewed the characteristics of the area during the last forest-level planning process in 1990 and designated the areas remaining along the park boundary as Matrix/Timber Suitable 1 and Riparian Reserve under the Forest Plan, as amended. The Forest has reviewed the area again for undeveloped characteristics through this NEPA analysis for potential wilderness areas (PWAs). EA at I-1 through I-33. Areas were classified as PWAs if they met one or more of the FSH 1909.12, Chapter 71 criteria. EA at I-3. PWAs are not a land designation, do not require specific protections and are not an evaluation of potential wilderness (FSH 1909.12, section 72). These areas are also not preliminary administrative recommendation for wilderness designation (section 73).

A few areas met one or more PWA criteria because they were contiguous with the proposed Wilderness in Crater Lake National Park. DN at 5 and EA at I-29 through I-31. Identification of an area as a PWA does not change the management area designation. EA at 157. PWAs identified in this analysis are not areas that were identified as "roadless areas" in neither the appendix C of the Forest Plan nor in the 'inventoried roadless areas' identified in the 2001 Roadless Area Conservation Rule (RACR). The EA excluded roads (per FSH 1909.12 section 71.1 (3)) in addition to a 300' buffer (per FSH 1909.12 section 71.11 (9)) from PWA analysis. EA at I-26 through I-27. The Responsible Official stated within EA Appendix I at I-3 that the 300-foot buffer was selected because harvesting for personal-use firewood is permitted within 300 feet of forest roads and danger tree removal occurs at various distances from open forest roads, depending on tree height and topographic slope.

The EA noted that "professional judgment" and "local knowledge regarding the evidence of recognizable stumps, skid trails, etc." were used to delineate buffer widths. EA at I-27. Furthermore, according to FSH 1909.12 at 71, there was a need to locate potential wilderness area boundaries at semi-permanent, human-made features to facilitate easy on-the-ground identification (i.e. common buffer width) of a boundary. EA at I-26. A determination was made that proposed activities would not affect the eligibility of the land inside Crater Lake National

Park because the size of the area will not be reduced to less than 5,000 acres (see FSH 1909.12, Chapter 7). DN at 10; EA at 158.

In addition, the Responsible Official deferred commercial treatment in units 7, 9, 10, 11, and 14 (modification 1 of the DN) in response to public concerns about undeveloped character of these areas. DN at 5. The intensity of remaining proposed activities in this area is minor resulting in no expected irreversible/irretrievable impacts to wilderness values, the extent of which is small, less than 0.25% of the 166,000-acre PWA. DN at 10 and EA at 156 through 165.